

Annotated /Louis Falasco/  
12/30/2008

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PATENT APPLN. NO. 10/578,921  
RESPONSE UNDER 37 C.F.R. §1.111

PATENT  
NON-FINAL

IN THE CLAIMS:

1. (currently amended) A magnetic recording medium comprising a magnetic layer on at least one surface of a film formed from an aromatic polyamide, the film being characterized in that the heat shrinkage ratio in the transverse direction of the film subjected to heat treatment under a condition of no tension for 30 min. at 180 °C is from 1.0 to 2.5%, and wherein the film:

(1) satisfies the following equations (1)-(4) simultaneously, with  $\alpha_{MD}$  ( $\times 10^{-6}/^{\circ}\text{C}$ ) and  $\alpha_{TD}$  ( $\times 10^{-6}/^{\circ}\text{C}$ ) being coefficient of thermal expansion in the longitudinal and the transverse direction, respectively, and  $\beta_{MD}$  ( $\times 10^{-6}/\%RH$ ) and  $\beta_{TD}$  ( $\times 10^{-6}/\%RH$ ) being coefficient of hygroscopic expansion in the longitudinal and the transverse direction, respectively[[.]]

$$\text{~~-10} \leq \alpha_{MD} \leq \text{10}~~ \quad \text{~~-7} \leq \alpha_{MD} \leq \text{6}~~ \quad (1)$$

$$\alpha_{MD}-10 \leq \alpha_{TD} \leq \alpha_{MD}-3 \quad (2)$$

$$-10 \leq \beta_{MD} \leq 10 \quad (3)$$

$$\beta_{MD}-10 \leq \beta_{TD} \leq \beta_{MD}-3 \quad (4); \text{ and}$$

(2) satisfies the following equations (5) and (6) simultaneously, with  $E_{MD}$  (GPa) and  $E_{TD}$  (GPa) being Young's moduli in the longitudinal and the transverse direction, respectively.

$$8 \leq E_{MD} \leq 16 \quad (5)$$

$$E_{MD} \times 0.7 \leq E_{TD} \leq E_{MD} \times 1.7 \quad (6);$$

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and wherein the magnetic-recording medium satisfies the following equations (7)-(10) simultaneously, with  $\alpha'$ MD ( $\times 10^{-6}/^{\circ}\text{C}$ ) and  $\alpha'$ TD ( $\times 10^{-6}/^{\circ}\text{C}$ ) being coefficients of thermal expansion in the longitudinal and the transverse directions, respectively, and  $\beta'$ MD ( $\times 10^{-6}/\% \text{RH}$ ) and  $\beta'$ TD ( $\times 10^{-6}/\% \text{RH}$ ) being coefficients of hygroscopic expansion in the longitudinal and the transverse directions, respectively.

<u><math>-5 \leq \alpha' \text{MD} \leq 10</math></u>	<u>(7)</u>
<u><math>-5 \leq \alpha' \text{MD} - \alpha' \text{TD} \leq 5</math></u>	<u>(8)</u>
<u><math>-10 \leq \beta' \text{MD} \leq 7</math></u>	<u>(9)</u>
<u><math>-5 \leq \beta' \text{MD} - \beta' \text{TD} \leq 5</math></u>	<u>(10).</u>

Claims 2 to 5 cancelled.

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